Value Engineering Award
Project Overview

State Where Project is located:

State of California – San Diego & Imperial Counties.

Name of project:

Value Analysis Study for District 11 Right-of-Way De-Certification Process.

State Agency Nominated:

State of California, Department of Transportation (CALTRANS), District 11.

Contact Person:

George Hunter, P.E., CVS, Chief, Value Analysis Branch
Design Division, Caltrans HQ; Phone: 916-653-3538; FAX 916-653-1527

Other participating parties:

N/A

Category of award Nomination

Most Value Added -- Process Improvement ☑

Brief Project/Proposal Description:

The process to de-certify State property for sale to the public currently takes approximately twenty months, and requires coordination between Right-of-Way and Design with input from a number of other functions. Because de-certification staff work competes with project development priorities, the routing of the Memorandum of Availability (MOA) is often delayed. The VA team was requested to verify, and if necessary revise, the existing process flow chart, in order to validate why it takes twenty months to complete the de-certification process. The team was charged with finding ways to reduce the timeline for de-certification, and defining roles and responsibilities. The VA team refined the existing process flow chart, to indicate what currently happens in District 11, and validated that the process typically takes about 20-1/2 months from start to finish.

The team recommended nine ideas that were accepted by management for implementation into the de-certification process, and shaved twenty-eight weeks off the timeline for the process. Based on the evaluation criteria defined by the team and the study sponsors, the changes result in 33% performance improvement, and 95% value improvement, over the previous process, particularly with respect to maintaining transportation system integrity and ensuring consistency and fairness.

Summary Of How This VA Study Performed In The Established Award Evaluation Criteria

Increased Value of the Project

- Changes resulted in 33% performance improvement, and 95% value improvement over the previous process.

Improved Operations and Cost Savings

- Reduction by 1/3 in the number of months needed to de-certify property, thus saving the cost of time and labor. (The current process for a new EA on each De-certification will be improved to capture all resources expended after a deposit has been received. The team's consensus is that time spent on De-certifications is not always charged properly, thus there is no way presently to accurately track resources used.)

Reduction in Schedule and Degree Final Process Differs From The Original

- Reduced processing 21 months to 13, cutting 7 months from the old process while maintaining transportation system integrity and ensuring consistency and fairness.

Right-Of-Way De-Certification Process VA Study

INTRODUCTION

This Report summarizes the events of the modified Value Analysis (VA) study conducted by Caltrans District 11, and facilitated by Value Management Strategies, Inc. The subject of the study was the District 11 Right-of-Way De-certification Process.

The documents provided to the VA team included the Right-of-Way Manual, excerpts from the Project Development Procedures Manual, and various policy and information memos.

BACKGROUND

The process to decertify State property for sale to the public currently takes approximately twenty months, and requires coordination between Right-of-Way and Design with input from a number of other functions. Because De-certification is not a high priority, the routing of the Memorandum of Availability (MOA) is often delayed because of other project priorities.

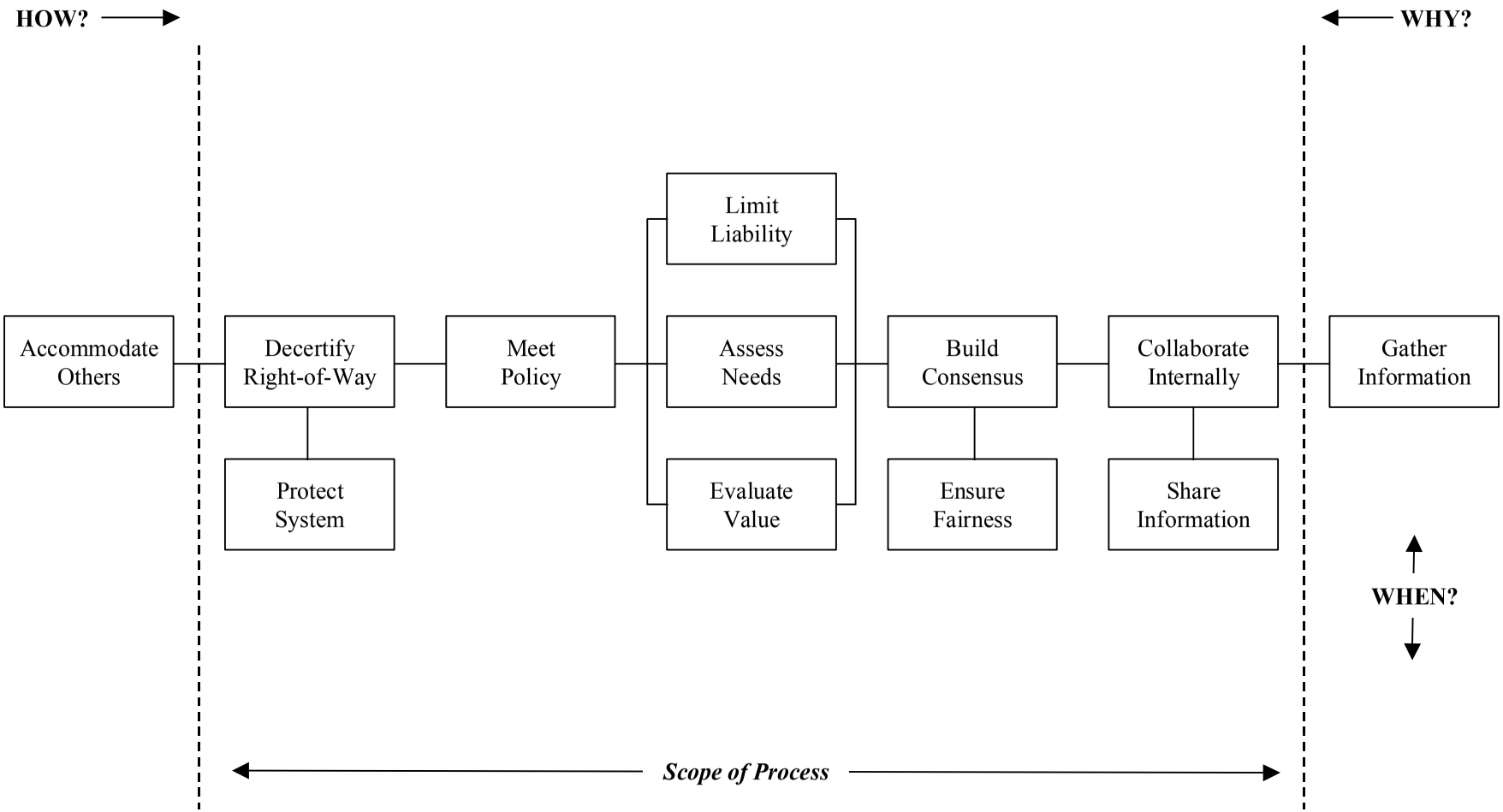
SPECIFIC ISSUES TO ADDRESS

The VA team was requested to verify, and if necessary revise, the existing process flow chart, in order to validate why it takes twenty months to complete the De-certification process. The team was charged with finding ways to reduce the timeline for De-certification, and defining roles and responsibilities.

PROCESS ANALYSIS

Using Function Analysis and Function Analysis System Technique (FAST) diagramming, the team, with input from the study sponsors, defined several functions related to the De-certification process. The functions were arranged in logical order so that when read from left to right, they answer the question "How?", and when read from right to left they answer the question "Why?" Functions connected vertically are those that happen at the same time as, or are caused by, the function at the top of the column. The FAST diagram on the following page illustrates the team's consensus on the scope of the De-certification process. While the basic function of Decertify Right-of-Way appears to be quite obvious, it is important to note that Protect [Transportation] System and Meet Policy are key functions involved in the goal to Accommodate Others. The VA team referred to this logic diagram to ensure that the required functions are being performed as they developed and proposed revisions to the process flow chart.

Function Analysis System Technique (FAST) Diagram



In order to evaluate the De-certification process, as well as ideas related to changing the process, the team and study sponsors developed the following performance measures:

- Compliance with Law
- Transportation System Integrity
- Consistency/Fairness (in application of the process)
- Efficiency
- Clarity of Rationale (of decisions made)

These criteria were used to evaluate the process overall, as well as the individual ideas generated by the team during brainstorming. The criteria were weighted, using a paired comparison approach, for later use in evaluating the overall process. The Performance Criteria Matrix is on the following page.

Prior to generating ideas for change to the process, the team also discussed factors influencing the timeline. Those include:

- Workload priorities
- Applicant responsiveness
- Department request for additional information
- Political pressure
- Functional units waiting on input from other functional units during evaluation of impacts
- Holiday season, vacations
- Manpower/resources
- Complexity of application
- Assertiveness of Lead in managing review times
- CTC schedule
- FHWA schedule and priorities
- Property valued at over $1 million must be reviewed by Airspace Advisory Committee – could add 5 months to timeline
- Presence of hazardous waste in parcel

While some of these factors are outside the control of staff, several triggered ideas for improvement to the process.

PERFORMANCE CRITERIA MATRIX *District 11, Right-of-Way Decertification Process*	Caltrans

								TOTAL	%
Efficiency	**A**	a	c	d	a	f		2.0	13%
Labor	**B**	c	d	e	f			0.0	0%
Transportation System Integrity	**C**	d	c	c				4.0	27%
Compliance with Law	**D**	d	d					5.0	33%
Clarity of Rationale	**E**	f						1.0	7%
Consistency/fairness	**F**							3.0	20%
	G								0%
								15.0	100%

CRITERIA DEFINITIONS:

Efficiency: Time it takes to complete the process.

Labor: Availability of staff, number of people, expertise.

Transportation System Integrity: Ability to deliver projects; depoliticizing project delivery.

Compliance with Law: Compliance with State and Federal requirements

Clarity of Rationale: Clarity of reasons behind decisions made; avoiding confusion.

Consistency/Fairness: Consistency and fairness in application of the decertification process; ease of conveying what's required.

VA STUDY RESULTS

The VA team began by refining the existing process flow chart, to indicate what currently happens in District 11. Where there were areas of uncertainty, they constructed the chart to reflect what should be happening. Each task on the chart reflects who is responsible for the task, and the approximate time it takes for the task to be completed. Note that number of days refers to a five-day workweek, e.g., a task showing 45 days takes 9 weeks. This activity validated that the process typically takes about 20-1/2 months from start to finish. The "PRE Value Analysis" flow chart is attached to this report.

The team identified twenty-three ideas for possible improvement to the process, and rated nine of those ideas high enough to recommend for implementation. Those nine ideas are summarized below; the detailed ratings, advantages, and disadvantages, are shown on the ideas list attached to this report.

Recommendation Number	Description	Process Time Saved
1	**Assign "Lead" to manage process.**	**Unknown**
	The existing process appears to be somewhat haphazard, in that there is not a single person who is responsible for following a De-certification through the process from beginning to end. It is important to have this focal point because of the tremendous amount of coordination required between all the functional units who have input on a given De-certification.	
	Disposition: This alternative was accepted for implementation. The Lead will be assigned to the Asset Management position in Resource Management. It is expected that the Lead will consult with Engineering and Route Management functions as needed when managing a De-certification through the system. A duty statement for the Lead position has been developed and is being circulated to advertise the position.	
2	**Assign higher priority to De-certification process.**	**Unknown**
	One of the reasons for the length of time it takes to complete the De-certification process is the low priority assigned to tasks associated with the process. Project delivery comes first (as it should). The team believes that the majority of projects will still get their priority, even if De-certifications are elevated somewhat. A higher priority on the process will also enhance the perception by Caltrans' customers that their needs are important.	
	Disposition: The priority of De-certification will be determined on a case-by-case basis.	

Recommendation Number	Description	Process Time Saved
3	**Request deeds 45 days earlier.**	**9 weeks**

Currently the deeds are not requested until a De-certification is approved. If the deed request is sent to Right-of-Way Engineering earlier, it will go into the "to do" stack and work its way to the top while other De-certification activities are occurring. This revised approach will require that a mechanism be put in place so that when the R/W engineer gets to the deed, he/she will contact the Lead to determine whether or not they should actually begin work on it. The risk associated with this approach is that time may be spent on a deed that is not needed, if for some reason the De-certification is cancelled.

Disposition: This alternative was accepted for implementation, and has been incorporated in the "POST Value Analysis" flow chart.

4	**Overlap, or start activities sooner**	**6 weeks**

Examples of activities that could be started sooner include:

- Do the Value Enhancement at the same time as Evaluate Benefits (4 weeks saved)
- Prepare the CTC request at the same time as Evaluate Benefits (2 weeks saved)

Disposition: This alternative was accepted for implementation, and has been incorporated in the "POST Value Analysis" flow chart.

5	**Eliminate the MOA**	**4 weeks**

The Memorandum of Availability (MOA) is typically circulated at the end of the process as one last check with all the functional units that it's okay to let the property be sold. This recommendation suggests eliminating that step for De-certifications only, and ask the functional units to give the "okay" at the same time that they evaluate the technical aspects of a De-certification. If any functional unit raises a red flag at that time (e.g., hold the property for a year), the Lead can go back and double check with that unit at the end of the De-certification process.

Disposition: This alternative was accepted for implementation, and has been incorporated in the "POST Value Analysis" flow chart.

Recommendation Number	Description	Process Time Saved
6	**Don't start formal De-certification clock until the check is in hand.** Approximately five days of informal evaluation of a De-certification request occurs before an applicant is requested to submit a check and a De-certification agreement. This recommendation suggests that a means be developed to charge the "pre-deposit" time, but not start the clock ticking on the actual De-certification process until the check and De-certification agreement are received from the applicant. At the time the items are requested, the applicant will be told that it will take approximately 14 months (based on the POST Value Analysis process) *after* their check and information are received to complete the De-certification process. This avoids spending time on a request from an applicant who may not be serious, and makes initial delays the applicant's responsibility. *Disposition: This alternative was accepted for implementation. A separate flow chart has been developed for Pre-De-certification Activities.*	**5 weeks**
7	**Develop checklist for type of information required based on type of De-certification requested.** A checklist would enable the applicant to submit all the required information the first time, would avoid follow-up time for Caltrans staff, and cut down on the amount of reading staff must do when the applicant's materials are received. *Disposition: This alternative was accepted for implementation. The Lead De-certification coordinator (Recommendation No. 1) will work with key functional representatives to develop a comprehensive listing of information required to facilitate a thorough review and evaluation of De-certification proposals/requests.*	**Unknown**

Recommendation Number	Description	Process Time Saved
8	**Hold meeting with functional units when map and parcel information are distributed, and again after evaluation period.**	**4 weeks**
	The current process has the Lead receiving information from all the functional units, and then assimilating the information to determine whether there are any problems associated with the De-certification. If a problem is identified, or contradictory information is received from two functional units, the Lead must spend time going back to the source(s) to clear up the confusion. This recommendation suggests that the Lead conduct a meeting with all functional units at the end of the evaluation period, receive their input all at the same time, and resolve any conflicts while they are all together.	
	Disposition: This alternative was accepted for implementation, and has been incorporated in the "POST Value Analysis" flow chart.	
9	**Create method for tracking resource expenditures**	**Unknown**
	The VA team considered recommending adding resources to staff to handle De-certifications, and ultimately decided that it makes more sense to develop a means for tracking current resource expenditures to permit analysis of resource needs. The current process for a new EA on each De-certification should be improved to capture all resources expended after a deposit has been received. The team's consensus is that time spent on De-certifications is not always charged properly, thus there is no way to accurately track resources used.	
	Disposition: This alternative was accepted for implementation. The Lead De-certification coordinator (Recommendation No. 1) will develop a methodology with key functional representatives to improve tracking resource expenditures for specific De-certification activities. This system could also be used for comparative analysis between each District and/or Statewide De-certification efforts.	
	Total Process Time Savings	**28 weeks**

CRITERIA FOR PERFORMANCE MEASURE

Using the criteria referred to previously, the team evaluated the overall De-certification process by rating the process performance on a scale of 1 to 10, then multiplying that rating by the criterion weight to arrive at a total score. When each criterion was rated and scored, a total score was listed at the bottom of the page. Using this approach to evaluate the existing process and the revised process – which incorporates the team's implemented recommendations – results in a 33% improvement in process performance. Dividing the total score by the number of months to complete the process results in a "value index." The revised process, which reduces process time by approximately 6-1/2 months, yields a value improvement of 95%.

The Performance Criteria Matrix is shown on the following page.

PERFORMANCE MATRIX *District 11 - Right-of-Way Decertification Process*	Caltrans

Criteria	Unit of Measurement	Criteria Weight	Concept	Performance Rating 1	2	3	4	5	6	7	8	9	10	Total Performance
Compliance with Law	Yes/No	33	Existing Process										**10**	330
			Revised Process										**10**	330
Transportation System Integrity	Degree of Impact	27	Existing Process							**7**				189
			Revised Process									**9**		243
Consistency / Fairness	Degree of Impact	20	Existing Process			3								60
			Revised Process							**7**				140
Efficiency	Length of Time	13	Existing Process		**2**									26
			Revised Process								**8**			104
Clarity of Rationale	Degree of Impact	7	Existing Process							**7**				49
			Revised Process								**8**			56

OVERALL PERFORMANCE	Total Performance	% Performance Improvement	Total Cost (No. of Months)	Value Index (Performance/ Cost)	% Value Improvement
Existing Process	654		20.5	31.90	
Revised Process	873	33%	14	62.36	95%

The VA Team

The three-day VA Study was conducted during the period of October 30 through November 1, 2001, in San Diego, California. Ginger Adams, CVS, from Value Management Strategies, Inc facilitated the meetings. The VA Team members are listed below, in alphabetical order:

Fred Birchmore	Chief, R/W Excess Lands	Caltrans District 11
Leroy Gomez	Assoc. R/W Agent, R/W Excess Lands	Caltrans District 11
Mary Beth Herritt	Office Chief, State PDP&QI	Caltrans HQ, Division of Design
Steve Ikeda	R/W Excess Lands	Caltrans HQ
Carmen Mullenix	VA Coordinator	Caltrans District 11
Pete Pfander	R/W Engineering	Caltrans District 11
Sarah Rivera-Contreras	Assoc. R/W Agent, R/W Excess Lands	Caltrans District 11
Duy Ton	Senior Transportation Engineer, Design	Caltrans District 11

Throughout the VA sessions, the VA team was supported by several individuals:

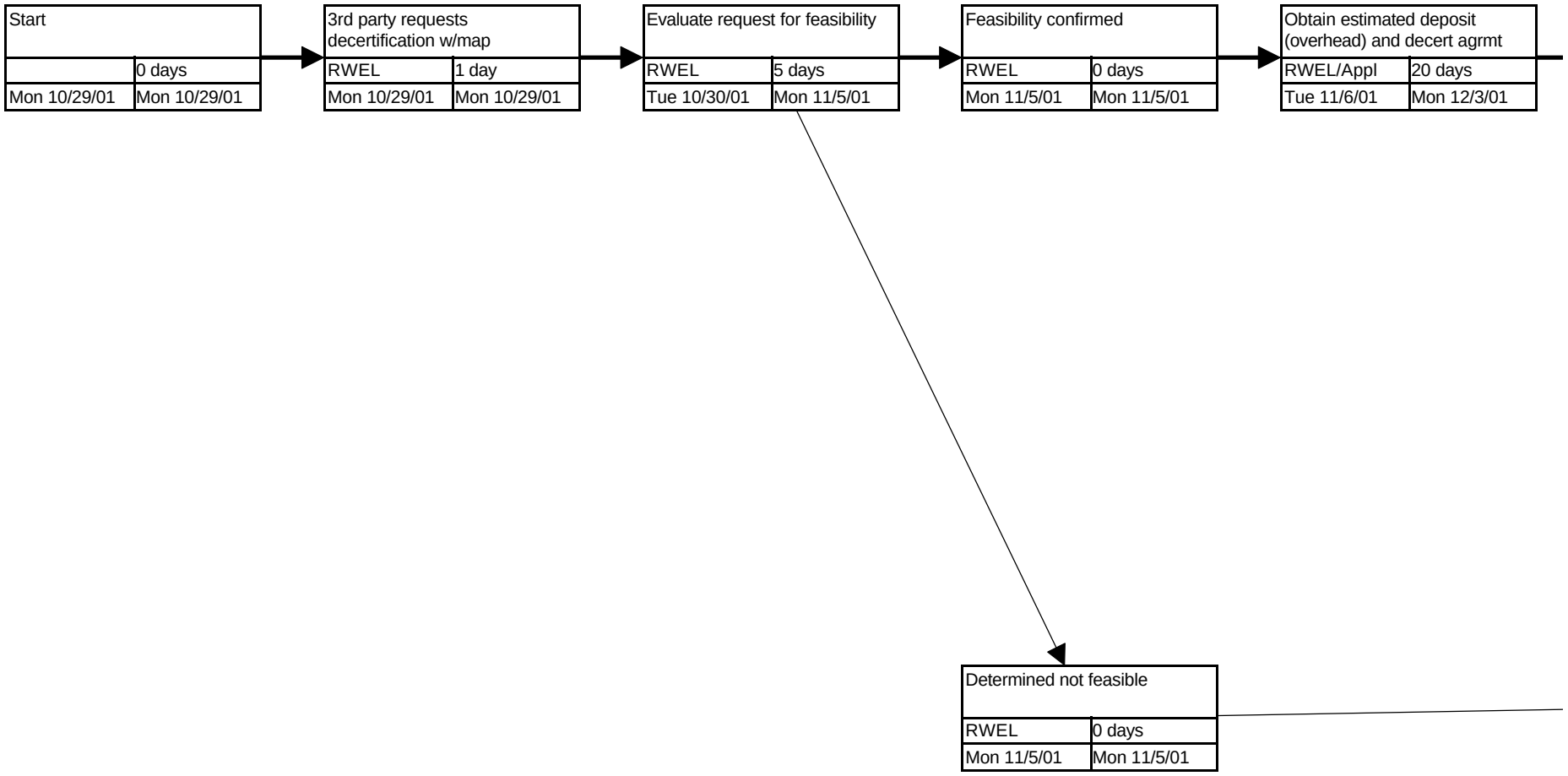
Chili Cilch	VA Program Manager	Caltrans District 11
Anne Marc-Aurele	Deputy District Director, Right-of-Way	Caltrans District 11
Rick Hopkins	Deputy District Director, Design	Caltrans District 11
Bill Valle	Deputy District Director, Engineering B	Caltrans District 11

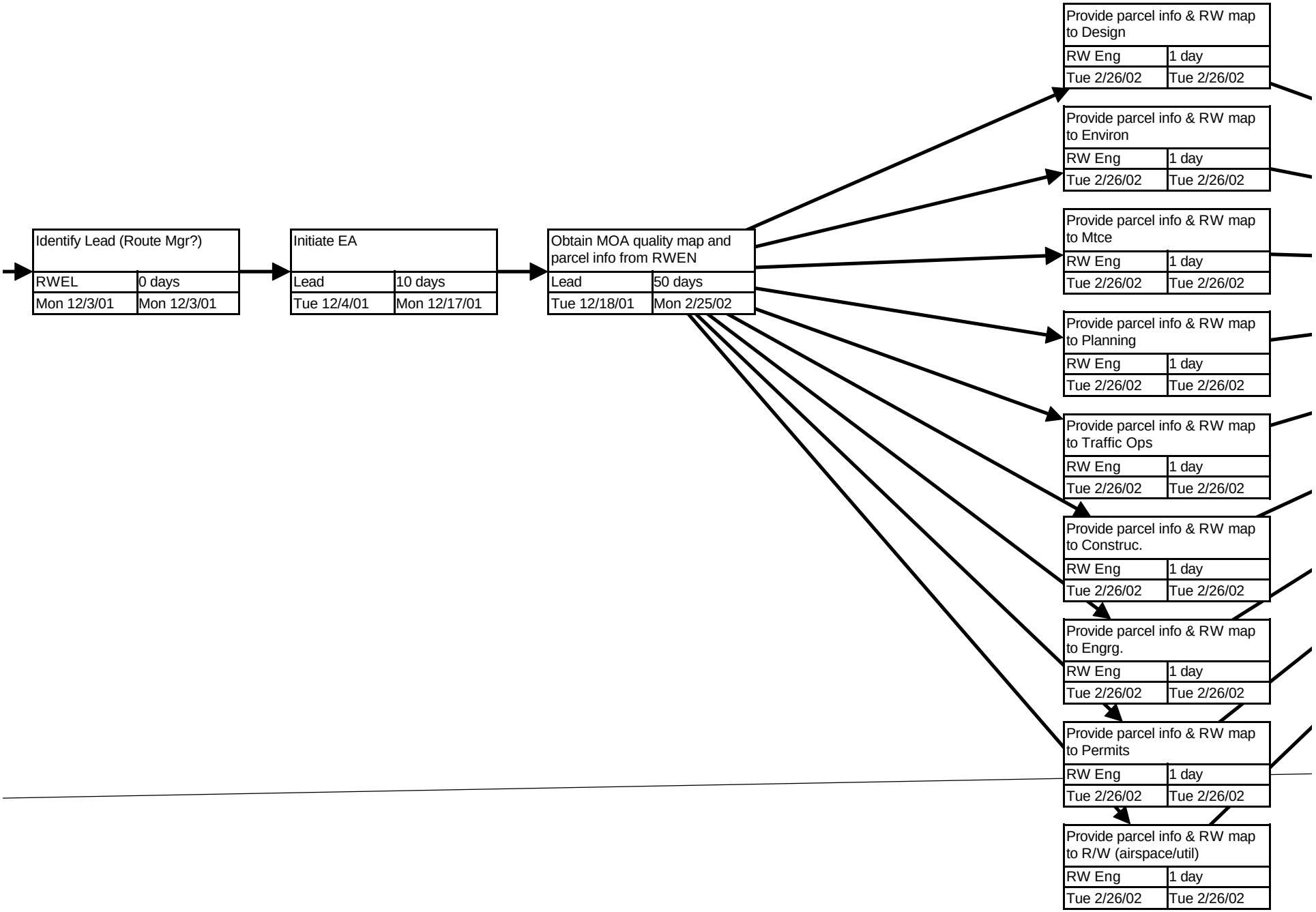
Attachments

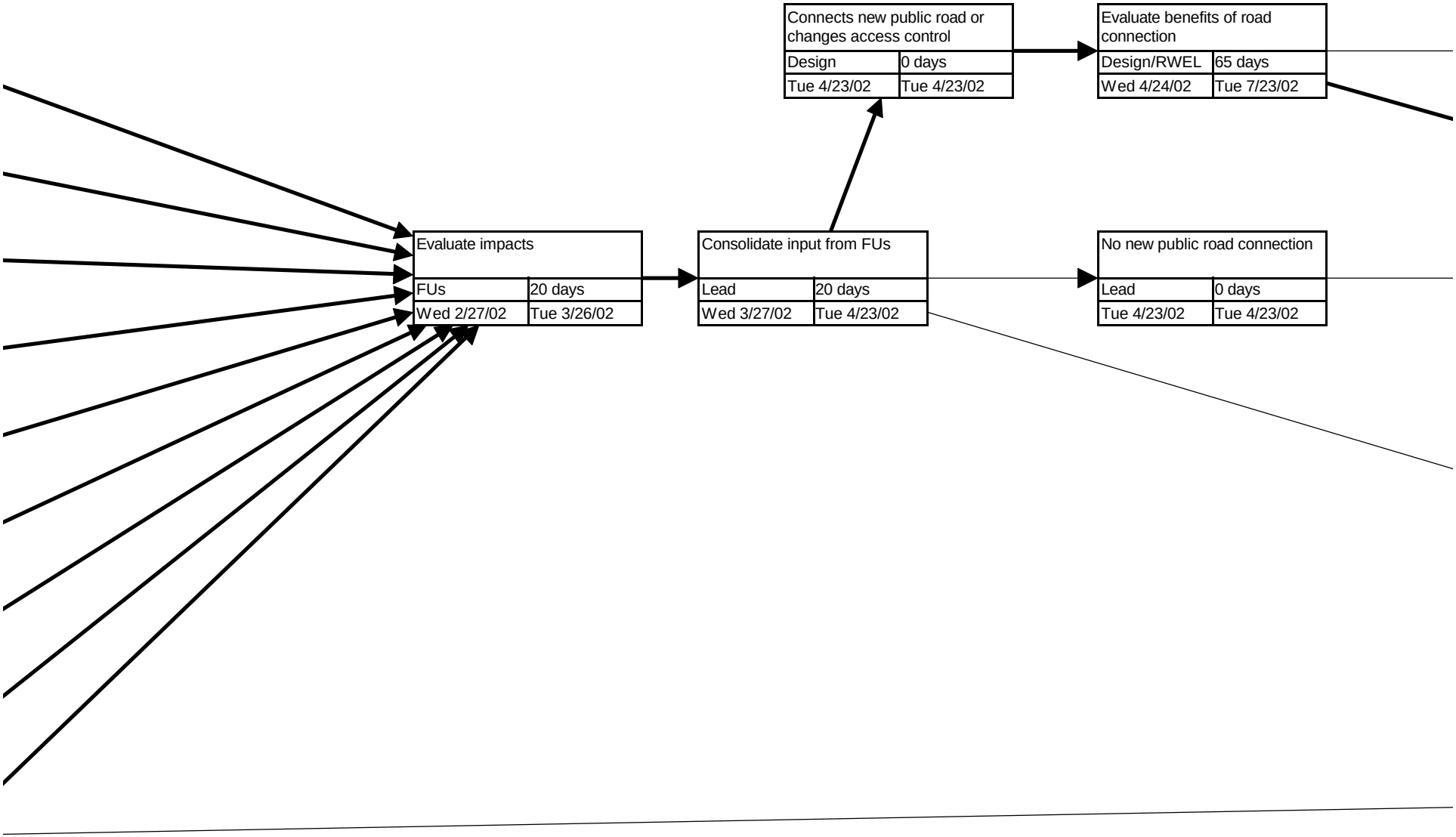
The attachments listed below, referenced within this report, are included on the following pages:

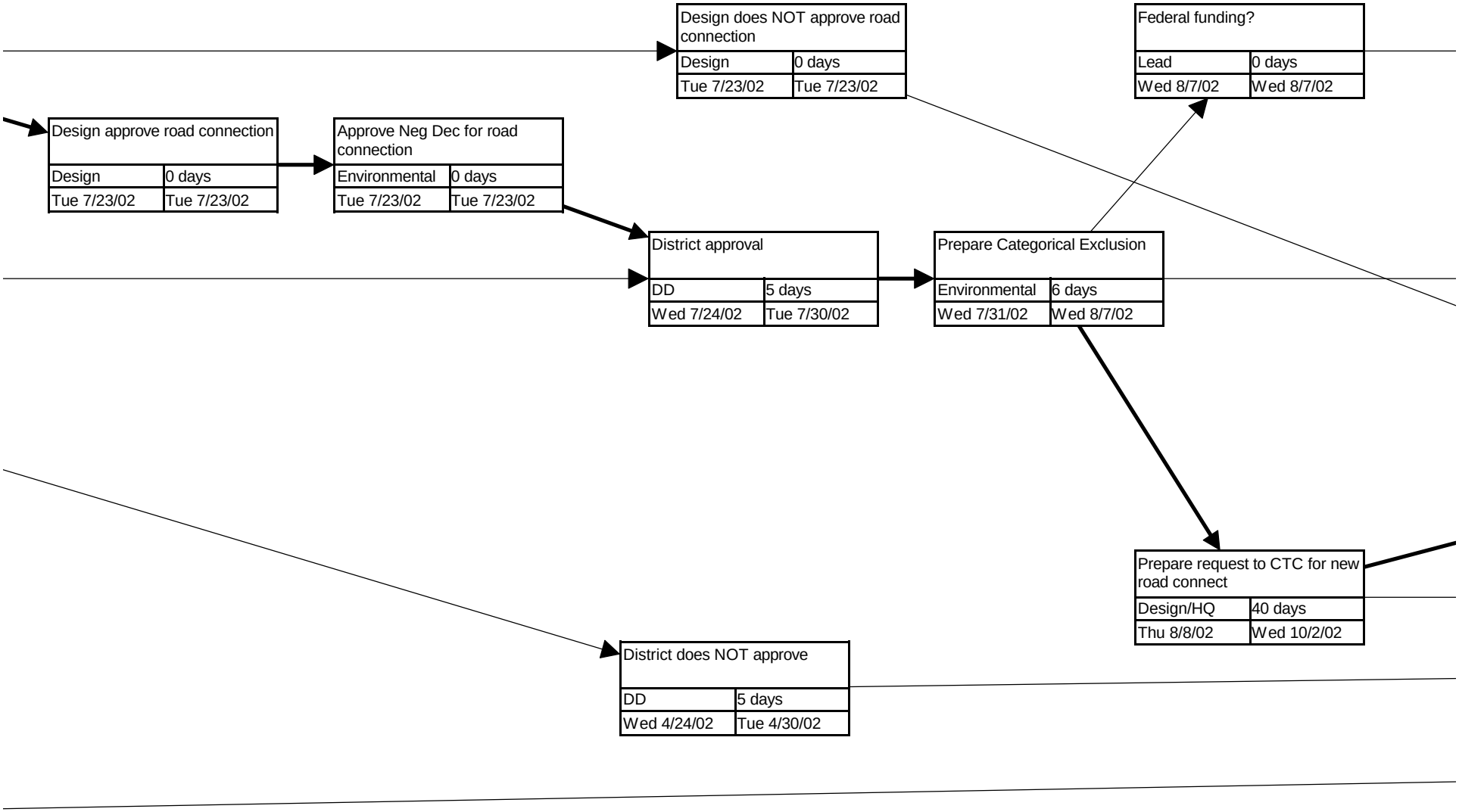
- Flow Chart, PRE Value Analysis R/W De-certification Process
- Flow Chart, POST Value Analysis R/W De-certification Process

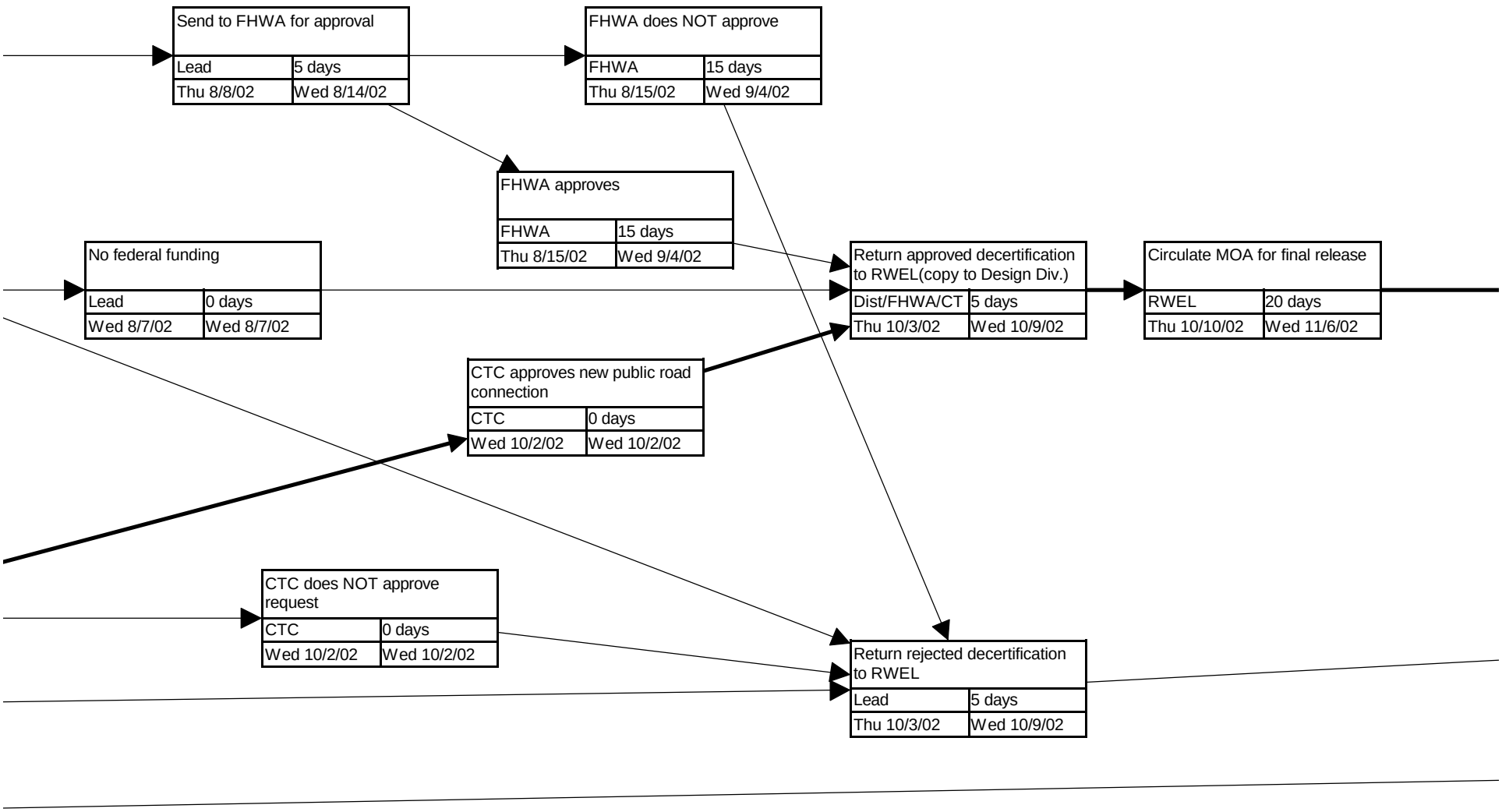
District 11, Right-of-Way Decertification Process
PRE Value Analysis

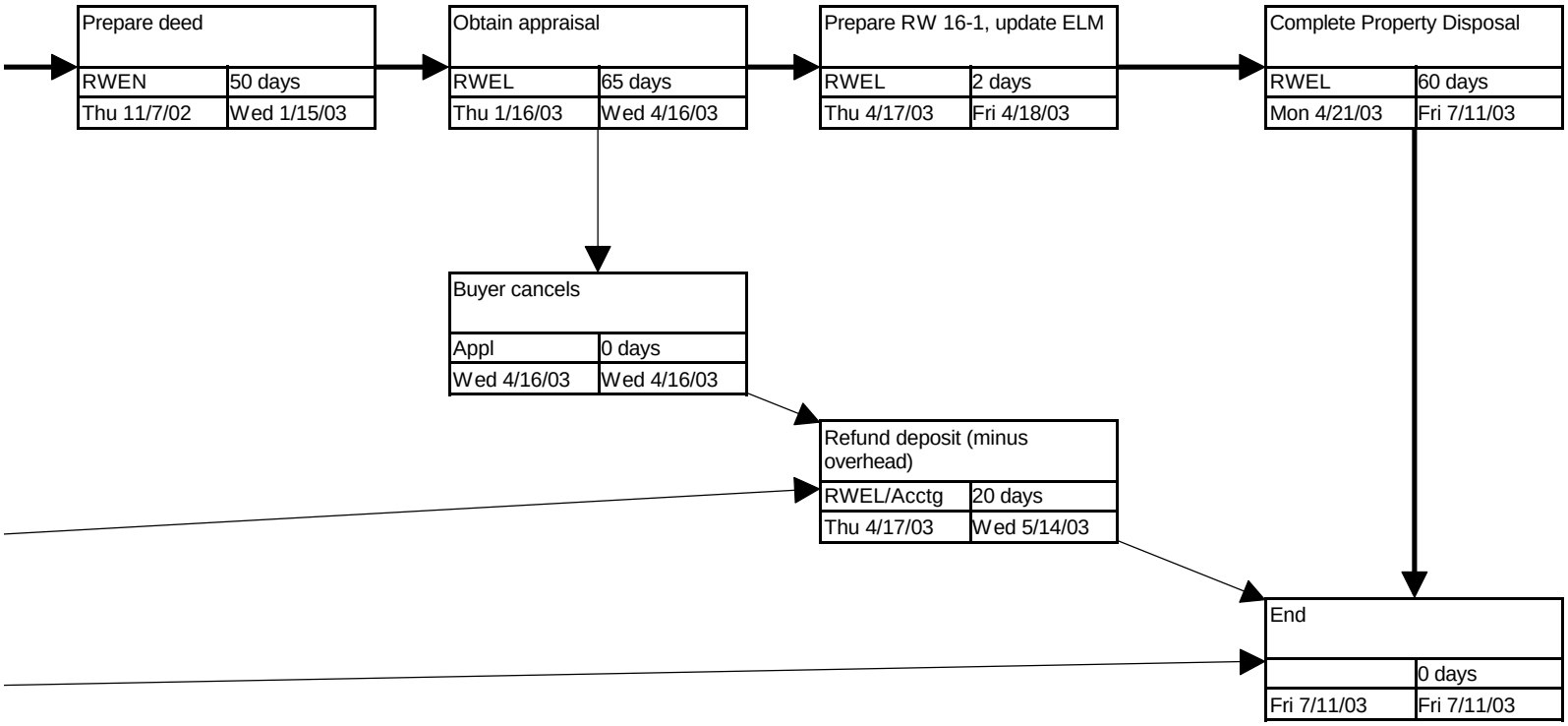



Identify Lead (Route Mgr?)
RWEL
0 days
Mon 12/3/01
Mon 12/3/01
Initiate EA
Lead
10 days
Tue 12/4/01
Mon 12/17/01
Obtain MOA quality map and parcel info from RWEN
Lead
50 days
Tue 12/18/01
Mon 2/25/02
Provide parcel info & RW map to Design
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Environ
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Mtce
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Planning
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Traffic Ops
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Construc.
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Engrg.
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to Permits
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02
Provide parcel info & RW map to R/W (airspace/util)
RW Eng
1 day
Tue 2/26/02
Tue 2/26/02

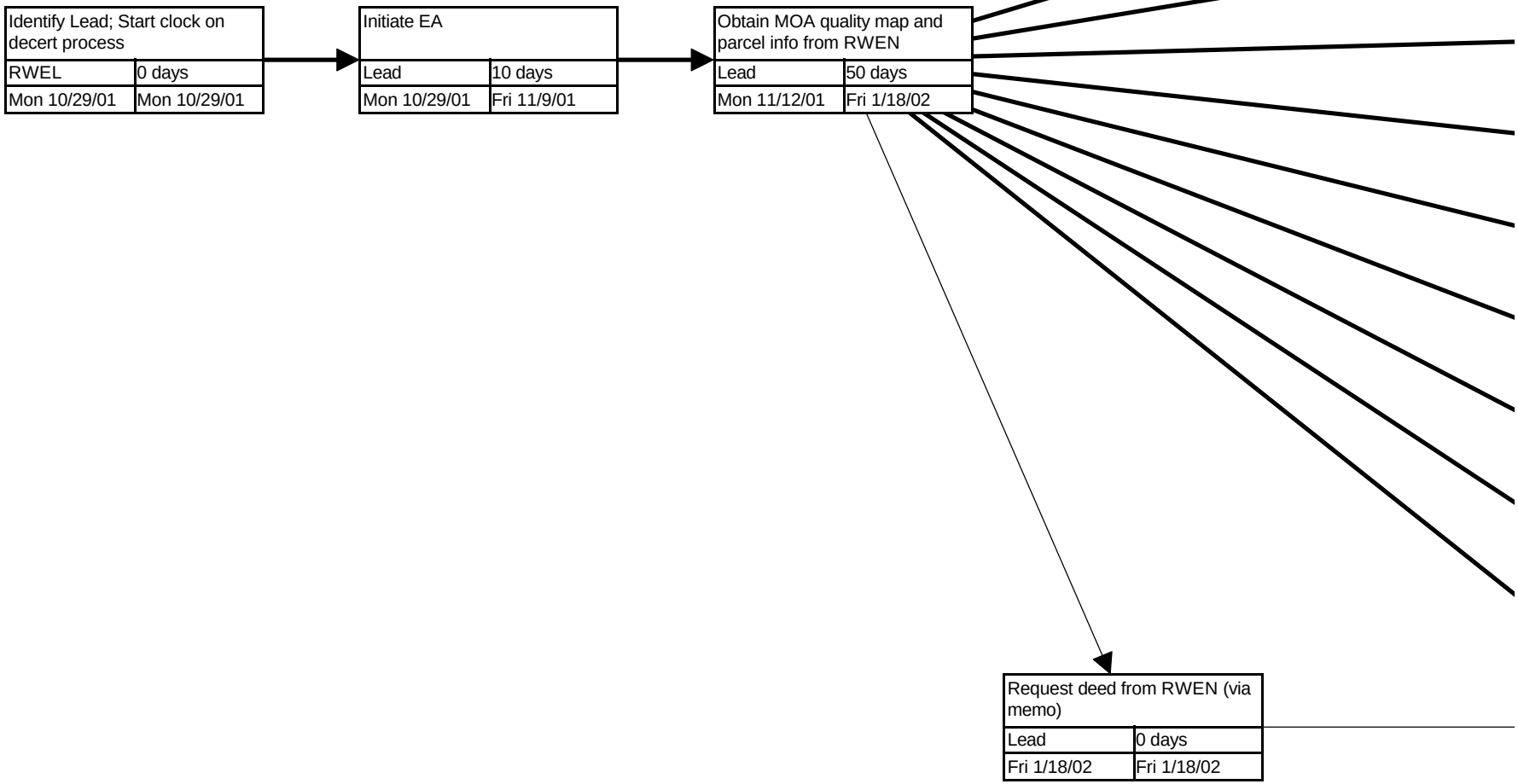

Connects new public road or changes access control
Design
0 days
Tue 4/23/02
Tue 4/23/02
Evaluate benefits of road connection
Design/RWEL
65 days
Wed 4/24/02
Tue 7/23/02
Evaluate impacts
FUs
20 days
Wed 2/27/02
Tue 3/26/02
Consolidate input from FUs
Lead
20 days
Wed 3/27/02
Tue 4/23/02
No new public road connection
Lead
0 days
Tue 4/23/02
Tue 4/23/02

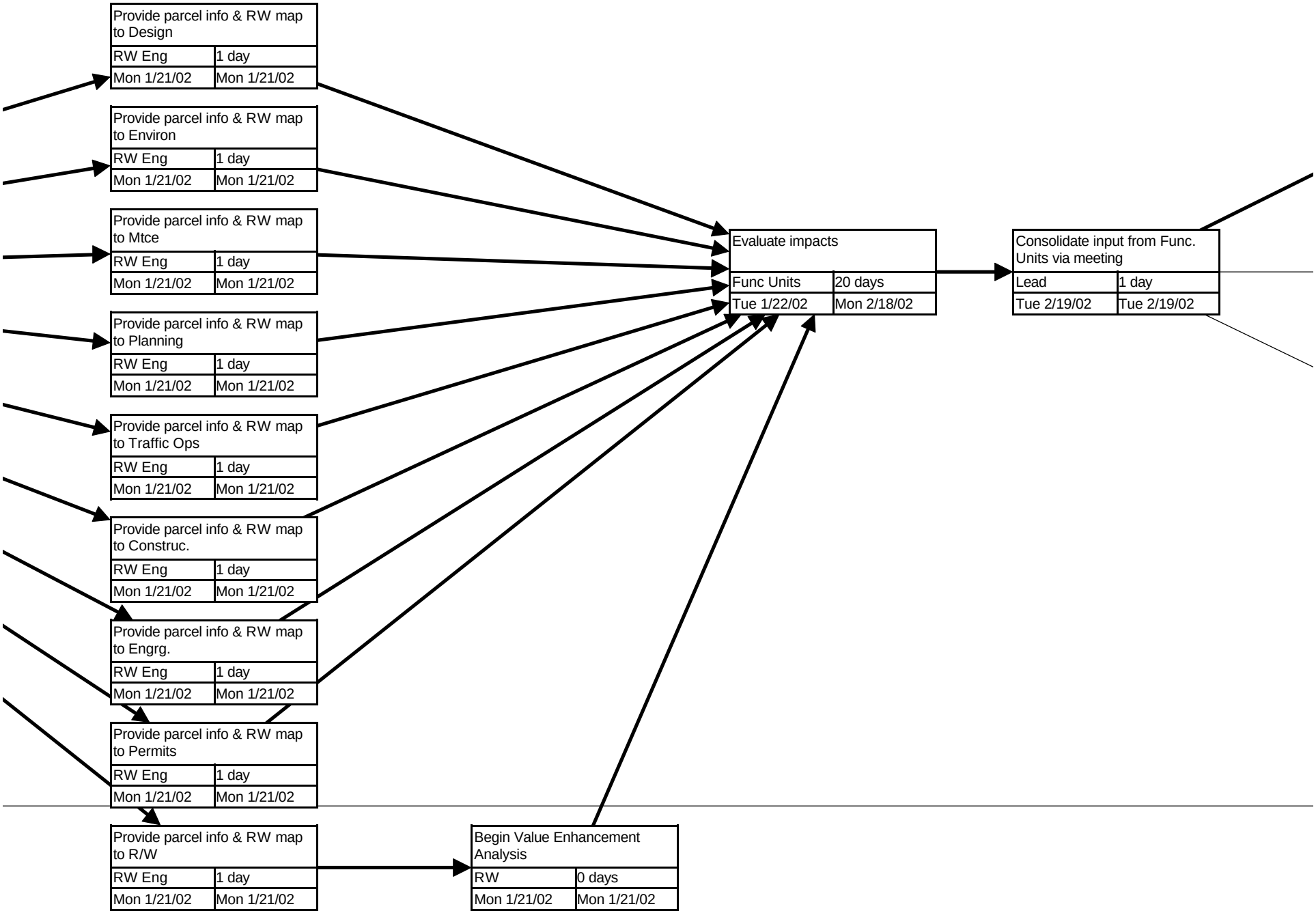

Design does NOT approve road connection
Design 0 days
Tue 7/23/02 Tue 7/23/02
Federal funding?
Lead 0 days
Wed 8/7/02 Wed 8/7/02
Design approve road connection
Design 0 days
Tue 7/23/02 Tue 7/23/02
Approve Neg Dec for road connection
Environmental 0 days
Tue 7/23/02 Tue 7/23/02
District approval
DD 5 days
Wed 7/24/02 Tue 7/30/02
Prepare Categorical Exclusion
Environmental 6 days
Wed 7/31/02 Wed 8/7/02
Prepare request to CTC for new road connect
Design/HQ 40 days
Thu 8/8/02 Wed 10/2/02
District does NOT approve
DD 5 days
Wed 4/24/02 Tue 4/30/02

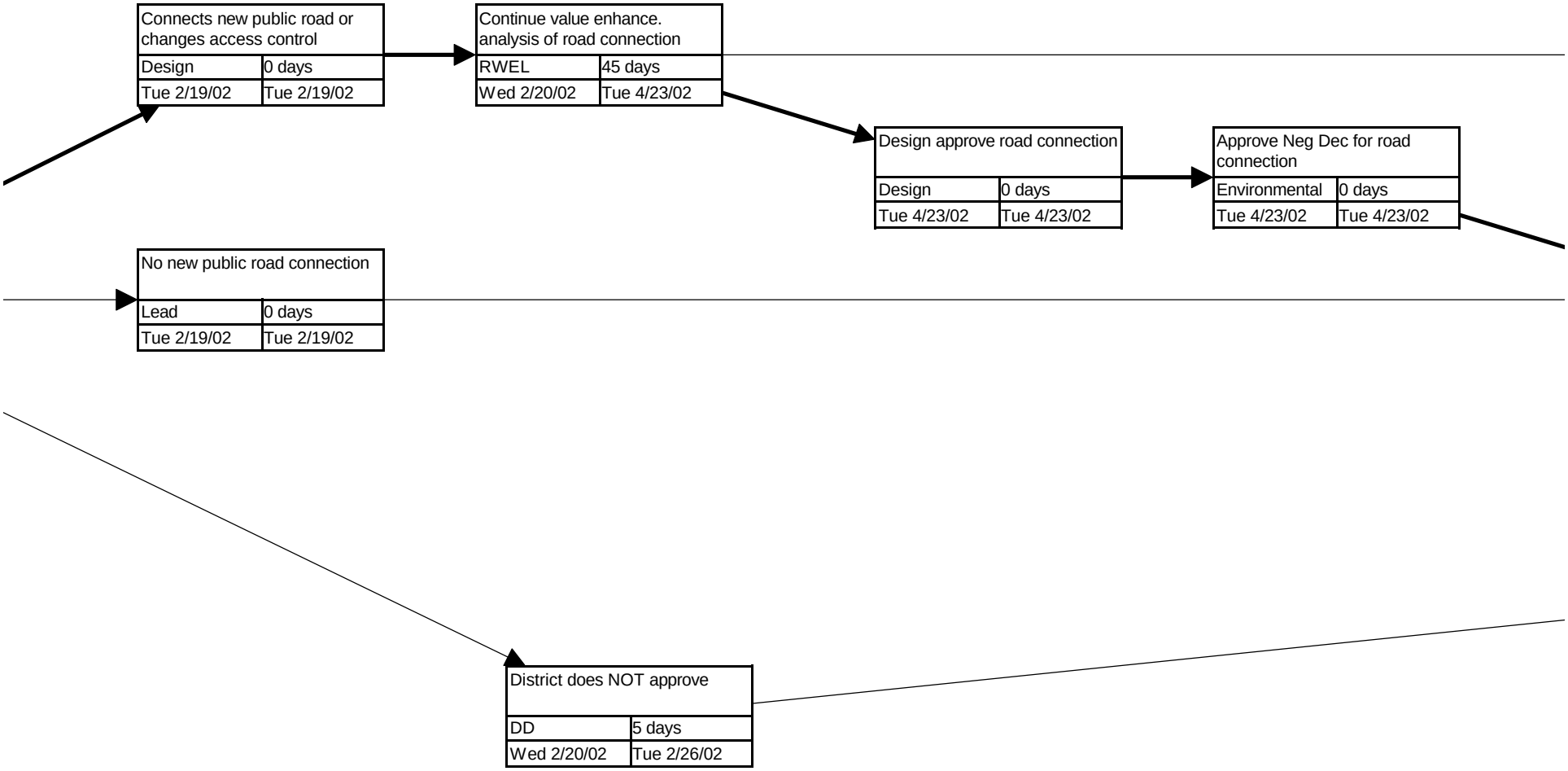

Send to FHWA for approval
Lead
5 days
Thu 8/8/02
Wed 8/14/02
FHWA does NOT approve
FHWA
15 days
Thu 8/15/02
Wed 9/4/02
FHWA approves
FHWA
15 days
Thu 8/15/02
Wed 9/4/02
No federal funding
Lead
0 days
Wed 8/7/02
Wed 8/7/02
Return approved decertification to RWEL(copy to Design Div.)
Dist/FHWA/CT
5 days
Thu 10/3/02
Wed 10/9/02
Circulate MOA for final release
RWEL
20 days
Thu 10/10/02
Wed 11/6/02
CTC approves new public road connection
CTC
0 days
Wed 10/2/02
Wed 10/2/02
CTC does NOT approve request
CTC
0 days
Wed 10/2/02
Wed 10/2/02
Return rejected decertification to RWEL
Lead
5 days
Thu 10/3/02
Wed 10/9/02

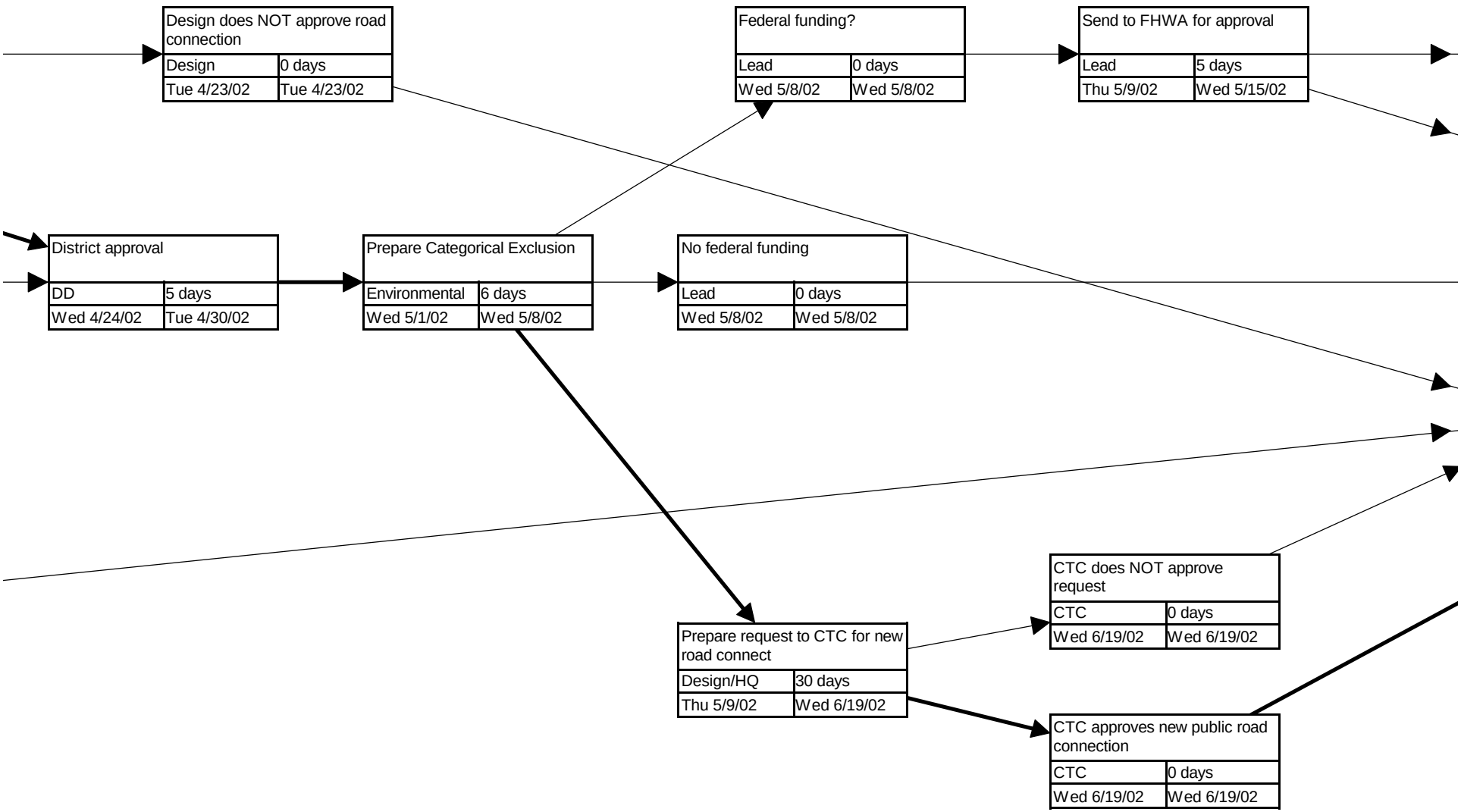

Prepare deed
RWEN
50 days
Thu 11/7/02
Wed 1/15/03
Obtain appraisal
RWEL
65 days
Thu 1/16/03
Wed 4/16/03
Prepare RW 16-1, update ELM
RWEL
2 days
Thu 4/17/03
Fri 4/18/03
Complete Property Disposal
RWEL
60 days
Mon 4/21/03
Fri 7/11/03
Buyer cancels
Appl
0 days
Wed 4/16/03
Wed 4/16/03
Refund deposit (minus overhead)
RWEL/Acctg
20 days
Thu 4/17/03
Wed 5/14/03
End
0 days
Fri 7/11/03
Fri 7/11/03

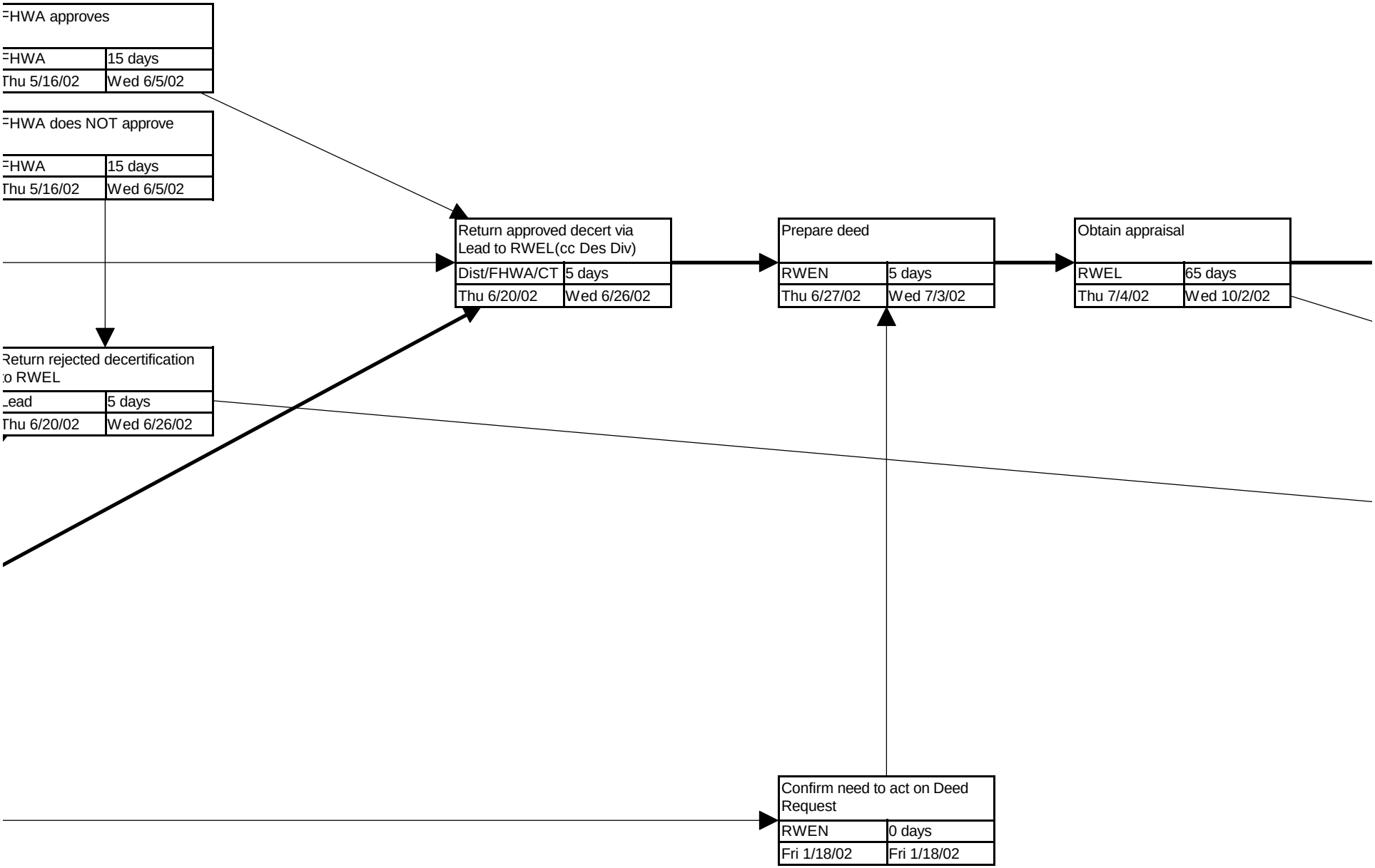
District 11, Right-of-Way Decertification Process
POST Value Analysis

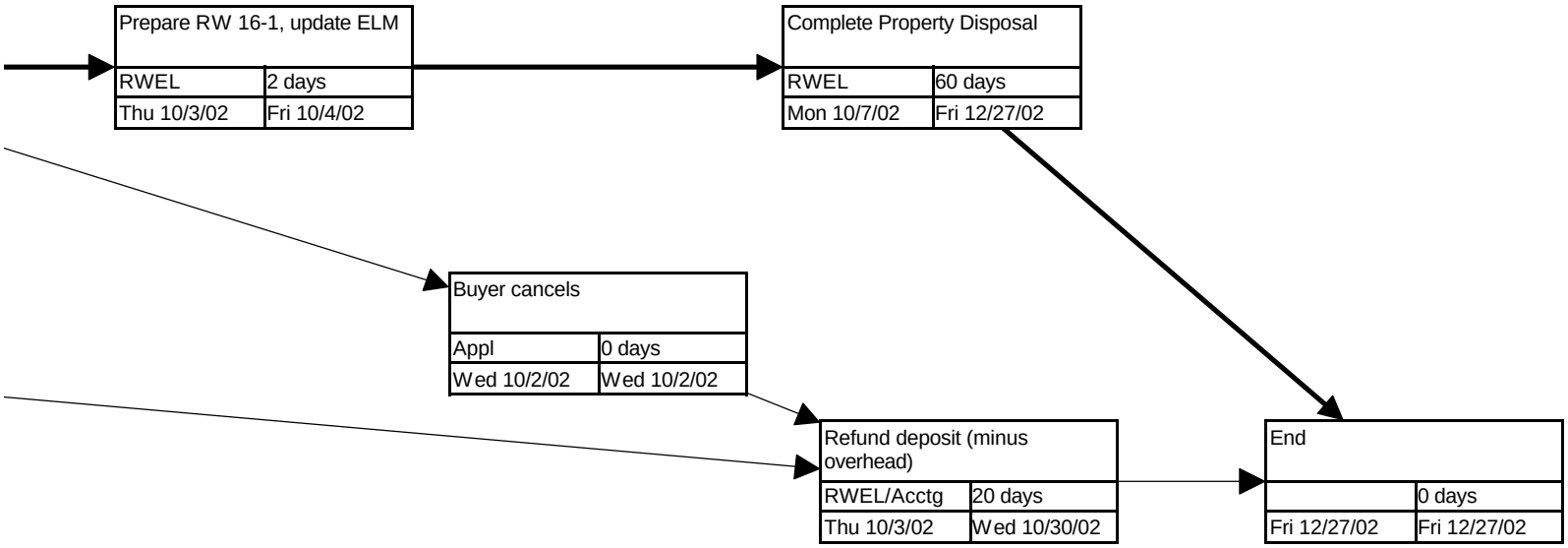



Provide parcel info & RW map to Design
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Environ
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Mtce
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Planning
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Traffic Ops
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Construc.
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Engrg.
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to Permits
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Provide parcel info & RW map to R/W
RW Eng
1 day
Mon 1/21/02
Mon 1/21/02
Evaluate impacts
Func Units
20 days
Tue 1/22/02
Mon 2/18/02
Consolidate input from Func. Units via meeting
Lead
1 day
Tue 2/19/02
Tue 2/19/02
Begin Value Enhancement Analysis
RW
0 days
Mon 1/21/02
Mon 1/21/02


Connects new public road or changes access control
Design
0 days
Tue 2/19/02
Tue 2/19/02
Continue value enhance. analysis of road connection
RWEL
45 days
Wed 2/20/02
Tue 4/23/02
Design approve road connection
Design
0 days
Tue 4/23/02
Tue 4/23/02
Approve Neg Dec for road connection
Environmental
0 days
Tue 4/23/02
Tue 4/23/02
No new public road connection
Lead
0 days
Tue 2/19/02
Tue 2/19/02
District does NOT approve
DD
5 days
Wed 2/20/02
Tue 2/26/02


Design does NOT approve road connection
Design
0 days
Tue 4/23/02
Tue 4/23/02
Federal funding?
Lead
0 days
Wed 5/8/02
Wed 5/8/02
Send to FHWA for approval
Lead
5 days
Thu 5/9/02
Wed 5/15/02
District approval
DD
5 days
Wed 4/24/02
Tue 4/30/02
Prepare Categorical Exclusion
Environmental
6 days
Wed 5/1/02
Wed 5/8/02
No federal funding
Lead
0 days
Wed 5/8/02
Wed 5/8/02
CTC does NOT approve request
CTC
0 days
Wed 6/19/02
Wed 6/19/02
Prepare request to CTC for new road connect
Design/HQ
30 days
Thu 5/9/02
Wed 6/19/02
CTC approves new public road connection
CTC
0 days
Wed 6/19/02
Wed 6/19/02


FHWA approves
FHWA
15 days
Thu 5/16/02
Wed 6/5/02
FHWA does NOT approve
FHWA
15 days
Thu 5/16/02
Wed 6/5/02
Return rejected decertification to RWEL
Lead
5 days
Thu 6/20/02
Wed 6/26/02
Return approved decert via Lead to RWEL(cc Des Div)
Dist/FHWA/CT
5 days
Thu 6/20/02
Wed 6/26/02
Prepare deed
RWEN
5 days
Thu 6/27/02
Wed 7/3/02
Obtain appraisal
RWEL
65 days
Thu 7/4/02
Wed 10/2/02
Confirm need to act on Deed Request
RWEN
0 days
Fri 1/18/02
Fri 1/18/02


Prepare RW 16-1, update ELM
RWEL
2 days
Thu 10/3/02
Fri 10/4/02
Complete Property Disposal
RWEL
60 days
Mon 10/7/02
Fri 12/27/02
Buyer cancels
Appl
0 days
Wed 10/2/02
Wed 10/2/02
Refund deposit (minus overhead)
RWEL/Acctg
20 days
Thu 10/3/02
Wed 10/30/02
End
0 days
Fri 12/27/02
Fri 12/27/02